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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,602	05/24/2001	Indra Laksono	VIXS 004	8010

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EXAMINER
VU, NGOC K

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/864,602	LAKSONO, INDRA
	Examiner	Art Unit	
	Ngoc K. Vu	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-25 and 28-79* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-25 and 28-79* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/24/01*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   It is noted that original claims 26 and 27 are missing which should be cancelled.

Applicant is reminded of 37 CFR 1.126 which requires the original numbering of the claims to be

preserved throughout the prosecution. When claims are canceled, the remaining claims must

not be renumbered. When new claims are presented, they must be numbered consecutively

beginning with the number next following the highest numbered claims previously presented

(whether entered or not).

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1, 2, 6, 7, 11, 13-15, 18-22, 29, 31-33, 36, 42-45, 48-50, 54, 55, 59, 61-63, 66-

68, 73, 75 and 77 are rejected under 35 U.S.C. 102(e) as being anticipated by Williams (U.S.

6,493,873 B1).

Regarding claim 1, Williams teaches a method of multiplexing a plurality of channels in a

multimedia system, the method comprises:

receiving a plurality of channels from a multimedia source (from satellite) (see col. 5,

lines 59-62; col. 6, lines 47-63);

receiving a plurality of channel selection commands (see col. 7, lines 31-47);

selecting a channel of the plurality of channels per channel selection command of the

plurality of channel selection commands to produce selected channels (see col. 11, lines 6-16);

and

encoding (via encoder 60) each of the selected channels based on a data conveyance

protocol (DVB cable) of the multimedia system to produce a set of encoded channel data (see

col. 10, lines 10-23).

Regarding claim 2, Williams teaches receiving a plurality of channel selection requests

from a plurality of clients (see col. 10, lines 59-65; col. 11, lines 6-12); and processing the

plurality of channel selection requests to produce the plurality of channel selection commands,

wherein the each of the plurality of channel selection commands includes specific channel

selection command (see col. 16, lines 5-19).

Regarding claims 6 and 7, Williams teaches receiving a second plurality of channels

from a second multimedia source (from cable provider), the selecting a channel comprises

selecting a channel from the plurality of channels, wherein each of the channel selection

commands includes identify of the multimedia source or the second multimedia source and

identify of the channel (see col. 10, lines 40-52; col. 6, lines 47-63).

Regarding claim 11, Williams teaches packetizing (via 58) data of each of the selected

channels into a packet that includes a header section and a data section, wherein the header

section includes packet sequence number (i.e., PID number) (see col. 13, line 23 to col. 14,

lines 14 and figure 3).

Regarding claim 13, Williams teaches framing data (via encoder 60) of each of the

selected channels into a frame that includes header section and a data section, wherein the

header section includes encryption (see figure 3; col. 9, line 65 to col. 10, line 23; col. 13, lines 56 to col. 14, line 15).

Regarding claim 14, Williams teaches conveying the frame in accordance with frequency division multiplexing data conveyance protocol (see col. 10, lines 24-38).

Regarding claim 15, Williams teaches multilevel encoding data of each of the selected channels via R-S encoder 92 and differential encoder 98 (see col. 14, lines 2-25).

Regarding claim 18, Williams teaches receiving a single channel from a multimedia source (from cable provider); selecting the single channel based on at least one of the plurality of channel selection commands to produce a selected single channel; and encoding the selecting single channel based on the data conveyance protocol (see col. 10, lines 40-52 and 10-23; col. 11, lines 6-21).

Regarding claim 19, Williams teaches receiving the single channel of at least one of data, audio data and video data from a modem (see col. 6, lines 47-52).

Regarding claim 20, Williams teaches receiving audio and video data for each of the plurality of channels from a satellite connection (see col. 5, lines 59-62).

Regarding claim 36, Williams teaches a tuning module for using in multimedia system, the tuning module comprises:

plurality of selectors (transmodulator channels), wherein each of the plurality of selectors is operably coupled to receive a plurality of channels, wherein each of the plurality of selectors outputs a channel of the plurality of channels based on a respective one of a plurality of channel selection commands to produce selected channels (see col. 9, lines 28-48; col. 10, lines 40-52);

encoding module (60) operably coupled to encode the selected channels based on a data conveyance protocol (DVB cable) of the multimedia system to produce encoded channel data (col.10, lines 10-23); and

bus interface module (between encoder 60 and upconverter 62) operably coupled to transmit the encoded channel data in accordance with the data conveyance protocol (see figure 3).

Regarding claim 42, Williams teaches that second plurality of selectors (within level shifter 70), wherein each of the second plurality of selectors is operably coupled to receive a second plurality of channels, wherein each of the second plurality of selectors outputs a channel of the second plurality of channels based on a respective one of the plurality of channel selection commands to produce second selected channels (see col. 10, lines 40-52).

Regarding claim 48, Williams teaches that the system comprises controller (72) to control receiving of the plurality of channel selection commands and control the transmitting of the encoded channel data (see col. 10, lines 53-65; col. 11, lines 6-67).

Regarding claims 49 and 67, Williams teaches an apparatus for multiplexing a plurality of channels in a multimedia channels, the apparatus comprises: processing module (within unit 72); and memory (within unit 72) operably coupled to the processing module, wherein the memory includes operational instructions (col. 12, lines 1-6; col. 10, lines 53-59) that cause the processing module to:

receiving a plurality of channels from a multimedia source (from satellite) (see col. 5, lines 59-62; col. 6, lines 47-63);

receiving a plurality of channel selection commands (see col. 7, lines 31-47);

selecting a channel of the plurality of channels per channel selection command of the plurality of channel selection commands to produce selected channels (see col. 11, lines 6-16); and

encoding (via encoder 60) each of the selected channels based on a data conveyance

protocol (DVB cable) of the multimedia system to produce a set of encoded channel data (see

col. 10, lines 10-23).

Claims 22, 50 and 68, see the similar interpretation for claim 2 above.

Claims 54 and 55, see the similar interpretation for claims 6 and 7 above.

Claims 29, 43, 59 and 73, see the similar interpretation for claim 11 above.

Claims 31, 44, 61 and 75, see the similar interpretation for claim 13 above.

Claims 32, 62 and 76, see the similar interpretation for claim 14 above.

Claims 33, 45, 63 and 77, see the similar interpretation for claim 15 above.

Claim 66, see the similar interpretation for claim 18 above.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 8, 28, 41, 56 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Williams (U.S. 6,493,873 B1).

Claims 8, 28, 41, 56 and 72, Williams teaches receiving the plurality of channel selection

commands (see col. 7, lines 31-40; col. 10, lines 59-65). Williams does not teach decrypting

each of the plurality of channel selection commands. Official Notice is taken that the technique

of decrypting information is well known in the art. Therefore, it would have been obvious to one

of ordinary skill in the art at the time the invention was made to modify the system of Williams by

decrypting each of the plurality of channel selection commands for security purposes.

6.   Claims 3, 9, 10, 16, 17, 23, 34, 35, 46, 47, 51, 57, 58, 64, 65, 69, 78 and 79 are rejected

under 35 U.S.C. 103(a) as being unpatentable over Williams (U.S. 6,493,873 B1) in view of

Basawapatna et al. (US 6,598,231 B1).

Regarding claims 3, 23, 51 and 69, Williams does not teach processing the plurality of

channel selection requests comprising authenticating a client of the plurality of clients that

provides a specific channel selection request. However, Basawapatna teaches the steps of

checking the customer authorization and determination whether or not the customer is a valid

user (see col. 14, liens 19-28). Therefore, it would have been obvious to one of ordinary skill in

the art at the time the invention was made to modify the system of Williams by processing the

plurality of channel selection requests comprising authenticating a client of the plurality of clients

that provides a specific channel selection request as taught by Basawapatna in order to verify

the authorized user for requesting the channel selection.

Regarding claims 9, 10, 16, 17, 34, 35, 46, 47, 57, 58, 64, 65, 78 and 79, Williams

teaches encoding the channels into packets based on the data conveyance protocol (see col. 9,

line 59 to col. 10, line 16). Williams as modified by Basawapatna further teaches that the video

signal are encrypted and/or compressed signals (see col. 7, lines 1-7).

7.   Claims 4, 5, 24, 25, 37-40, 52, 53, 70 and 71 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Williams (U.S. 6,493,873 B1) in view of Rakib et al. (US 20040172658

A1).

Regarding claims 4, 5, 24, 25, 37-40, 52, 53, 70 and 71, Williams teaches receiving and

decoding the plurality of channel selection requests by decoder 73. These requests may be

from the IRDs periodically to indicate to the control unit 72 which transponder signals are being

actively requested by the IRDs (see col. 7, lines 31-40; col. 10, lines 59-65; col. 11, lines 1-4;

and figure 3). Williams does not teach monitoring packets on a shared bus and identifying at

least one of the packets to contain at least a portion of one of the plurality of channel selection commands. However, Rakib teaches that when the user selects a VOD selection from menu in which the pointer lies is transmitted via bus 81 to the receiver 82. The receiver 82 then uses an IP address of video server as a destination address and its own IP address as a source address and the requested selection to create an IP packet bearing the VOD request. This packet is then encapsulated into an Ethernet packet addressed to gateway 14 and sent to the gateway. The gateway strips off the Ethernet header and routes the IP packet to the appropriate video server (see 0083-0086). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Williams by monitoring packets on a shared bus and identifying at least one of the packets to contain at least a portion of request as taught by Rakib in order to effectively recognize the user's request from the packet and provide the request to the video server.

8.   Claims 12, 30, 60 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams (U.S. 6,493,873 B1) in view of Hartley et al. (US 64734414 B1).

Regarding claims 12, 30, 60 and 74, Williams does not teach conveying the packet using CSMA with collision detection. However, Hartley discloses that a protocol known as carrier sense multiple access with collision detection (CSMA/CD) is utilized to detect collisions during transmission (see col. 1, lines 25-31). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system Williams by providing CSMA/CD protocol in order to effectively detect collisions during transmission.

Conclusion

9.   The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an

individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

Certificate of Mailing

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    Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

    Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc K. Vu whose telephone number is 571-272-7306. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Christopher Grant can be reached on 571-272-7294. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ngoc K. Vu
Primary Examiner
Art Unit 2611

August 16, 2005